CHAPTER SIX
TARGET SYSTEM PERFORMANCE

The prior chapter of the Maine Aviation Systems Plan Update determined and rated current performance of Maine's airport system using a set of performance measures and benchmarks adopted specifically for this study. Once current system performance was established, it was then possible to set "targets" for how the system should ideally perform in the future. It setting targets for future system performance, it is recognized that funding, environmental, political, and other constraints could deter the system from reaching its target performance objectives. Nevertheless, it is important to set these objectives to guide the future development of Maine's Airport System. Working with OPT and the Project Advisory Committee, targets for future system performance were established. Target compliance objectives are discussed in this chapter.

TARGET PERFORMANCE: QUALITY OF LIFE

In setting target objectives for this measure, it is important to recognize that populated areas of Maine are well served by the existing public airport system. It is also worth recognizing that private airports and out of state airports play a role in serving remote areas of Northern Maine. Maine is well served when 30-mile service areas for the public airport system are considered. Additional public investment for airports to serve remote areas is not required.

The emergency needs of island areas are most frequently served by sea or by helicopters. Cost and environmental constraints limit the feasibility of additional or expanded fixed wing airport facilities to serve the islands. As targets for future system compliance are set, it is important that they support OPT's desire to obtain separate State funding to provide improvements to existing island airports. These funds would be used to enhance the margin of safety at island airports. Additional public airports to serve the island areas should be supported in the event there are locally based initiatives for such facilities. Existing airports should be preserved, protected, and enhanced when demand dictates and local conditions permit.

Maine's forest firefighting activities are provided by helicopters, as opposed to fixed wing aircraft. Maine Forest Service, in cooperation with LifeFlight of Maine, has identified where system improvements (i.e. fuel and approaches) may be desirable to support their activities. These needs should be incorporated into the Systems Plan's final recommendations.

"Flight for life" operations in Maine are provided exclusively by helicopters. It may be worth investigating the feasibility of other operators applying for State certification to provide support for this vital service for non-life threatening emergencies. LifeFlight has identified airport specific needs for improved fuel, approach, and lighting facilities; these needs should be incorporated into the Systems Plan.

TARGET PERFORMANCE: CAPACITY

The Maine Airport System as a whole provides ample operational capacity. Portland International Jetport, Maine's busiest commercial service airport, is the only system airport that may face an operational capacity deficiency during the next ten years. Options that are available to address potential operational capacity shortfalls for Portland International (facility enhancements, air service improvements at other Maine airports, larger commercial aircraft, demand management/reliever airports) should be incorporated into Systems Plan recommendations.

Currently 43 percent of all system airports meet their MASPU objective for providing covered aircraft storage. In formulating target objectives for Maine's future airport system, it is important to recognize the role that private airports play in meeting Maine's needs for hangar storage. Systems Plan forecasts and MASPU objectives for hangar storage determine each airport's need for current and future hangar storage. An objective to have all airports 100 percent with their applicable hangar storage objectives has been adopted by this plan. Resultant aircraft storage/hangar needs should be incorporated into the recommendations for the MASPU.

Currently, 71 percent of all system airports meet their MASPU objective for providing general aviation related automobile parking. Using Systems Plan forecasts and MASPU objectives for auto parking, each airport's need for current and future auto parking can be determined. A target to have 100 percent of all applicable auto parking objectives met by system airports has been adopted. These identified needs should be incorporated into the recommendations for the MASPU.

As discussed in Chapter Five, under the current system stratification, 75 percent of all system airports meet their MASPU objective for providing general aviation-related terminal/administration buildings. Level I airports should have at least 2,000 square feet of terminal/administration space. Level II airports should have at least 1,000 square feet of terminal/administration space. Level III airports should provide a public phone and restroom. There was no objective for airports in Level IV related to terminal/administration building space. It is recommended that 100 percent of all applicable terminal/administration building objectives be met by system airports.

TARGET PERFORMANCE: AVIATION OUTREACH

Currently, 33 percent of the State, 90 percent of its population, and 67 percent of the service centers are within 30 minutes of an airport with a flight instructor. It is important to recognize that flight instruction will most likely be provided if demand warrants. Service objectives adopted for the Systems Plan call for Level I and Level II airports to have full service FBOs and for Level III airports to have limited service FBOs. Based on this objective, flight instruction should be provided, as demand warrants, at Level I and Level II airports and possibly at some Level III airports.

Maine currently has no A&P schools. Systemwide, 58 percent of all Maine's public airports now have aviation maintenance and repair services. To meet service objectives established in the Systems Plan, Level I and Level II airports should provide some level of aircraft maintenance or repair.

Airports that have some type of formalized and on-going public outreach or educational program usually enhance their long-term compatibility with their host communities. In addition, these types of programs help airports to implement expansion and development plans when demand warrants. Currently, 47 percent of all system airports have such programs. A target has been established to have 100 percent of all system airports develop and implement such plans.

When airports partner with local educational institutions to provide aviation-related educational training or courses, this often helps to promote aviation, aviation awareness, and airport acceptance. In addition, such programs can increase demand and help to diversify airport revenue. Currently, only 22 percent of all system airports report having such programs. While this is an informational benchmark, airports should be encouraged to foster such programs where possible; no specific Systems Plan target for raising system performance for this benchmark was adopted.

TARGET PERFORMANCE: STANDARDS/SAFETY

To promote safety and to adhere to FAA standards, all system airports should have clear approaches. Approach standards are established by each airport's type of approach (visual, non-precision, and precision) and by the airport's specific descent minimums. In the MASPU, information to determine current system compliance for this benchmark was furnished by the airports themselves or was obtained from current FAA 5010 inspection forms. Data from the Systems Plan presented in Chapter Five shows that 77 percent of the original Level I airports now report clear approaches or plans to provide clear approaches on their primary runway. For the original Level II airports, 57 percent report clear approaches or plans to clear primary runway approaches. For the original Level III airports, 75 percent report having clear approaches or plans to provide clear approaches to their primary runways. For the original Level IV airports, 38 percent have or are planning to have clear approaches to their primary runways. Systemwide, current compliance ratings are as follows: clear approaches 31 percent, plans to clear primary runway approaches 33 percent, and lacking clear primary runway approaches 36 percent. To provide Maine with a safe airport system, the Systems Plan adopted a target to have 100 percent of all system airports have clear approaches to their primary runways. To the extent that existing data permits, the Systems Plan will identify individual airports needing action to resolve current deficiencies for this benchmark.

Vegetation (primarily trees) is the leading obstruction at all airports. Even if airports presently report clear approaches, over time vegetation can grow causing future penetrations to approach and other safety surfaces that should be clear of obstructions. To resolve existing obstructions and to prevent future obstructions, vegetation

management and/or other similar obstruction removal plans are ideal. Currently, 47 percent of all system airports report having obstruction removal/vegetation management plans. At a minimum, the Systems Plan has adopted a target to have all Level I and Level II airports develop and implement vegetation management plans. Funding may be a consideration for adopting a 100 percent compliance for the Level III and the Level IV airports. The Systems Plan has adopted at target to encourage Level III and Level IV airports to also meet this benchmark, but from a funding standpoint, priority will be given to making Level I and Level II airports compliant with this benchmark.

The facility and service objectives established in the MASPU call for Level I and Level II airports to provide full or partial parallel taxiways. The Systems Plan adopted a target to have 100 percent of all applicable airports meet this benchmark. Currently, all system airports with a full or partial parallel taxiway reportedly comply with this benchmark. As airports in the Maine system develop and expand to meet statewide or local objectives, is will be important for individual airport master plans and airport layout plans (ALPs) to insure that future parallel taxiways are developed in accordance with each airport's applicable FAA airport reference code (ARC).

OPT has a separate pavement management plan for the Maine airports. In that plan, an objective for having a Pavement Condition Index (PCI) rating of 70 or greater on each airport's primary runway has been set. The Systems Plan adopted a target to have 100 percent of all system airports comply with this benchmark. Currently, 85 percent of all system airports have a PCI of 70 or greater on their primary runway.

For Maine's airports to operate in the safest and most efficient manner, system airports should meet all applicable FAA design and development standards. A target has been established in the Systems Plan to have 100 percent of all system airports provide runway safety areas (RSAs) on their primary runway that comply with the airport's applicable ARC. Currently, 91 percent of all system airports now meet this benchmark, according to data that was supplied by each airport during the initial inventory effort for the Systems Plan.

Ideally, all system airports should have operations manuals; in developing target compliance objectives, it is recognized that at the smaller system airports (Level IV), resources and personnel may not be available to support such manuals. The Systems Plan set a target for all (100 percent) Level I, Level II, and Level III airports to have operations manuals.

With threats for aviation related terrorism in the U.S., a target was established to provide at least all Level I and Level II airports in the Maine system with emergency response plans; 100 percent compliance for Level I and Level II airports has been established as a target. Emergency response plans for Level III and Level IV airports based on their lower assessed risk for the type of aircraft that they accommodate are not needed but are nevertheless desirable.

The possibility of wildlife incursions exists at all system airports. A target was adopted to have 100 percent of all system airports have a wildlife management plan. A follow on part of the Systems Plan could include a "model" wildlife management plan that would be developed and distributed to all system airports. Currently, only 17 percent of all system airports report that they have a wildlife management plan.

For Maine to have and to promote a system of safe airports, all system airports should conduct routine self-inspections on a regular basis. A target was set to have 100 percent of the system airports comply with this benchmark. As a follow on to the MASPU, FAA guidelines could be used to develop information that could be distributed to system airports to help them comply with this benchmark. Currently, 78 percent of the system airports report that they conduct regular self-inspections.

For Maine to have a safe airport system and one that is compatible with the human and natural environment, all (100 percent) airports with fuel storage should have fuel facilities that meet NFPA guidelines. Currently, for the system 57 percent of the airports meet this benchmark, 31 percent of the airports currently have no on-site fuel, 8 percent of the airports do not meet the benchmark, and the remaining 4 percent of the airports are uncertain as to whether or not their current fuel storage is in compliance with NFPA guidelines.

TARGET PERFORMANCE: ECONOMIC SUPPORT

For Maine's airport system to support and sustain the State's economy, it should ideally have airport facilities that are well matched to the economic needs. Good airport/aviation facilities are an important part of an area's economic infrastructure. The 69 primary and secondary Service Centers that have been established by The Maine Office of Statewide Planning should be well served by Maine's Airport System. In order to promote an airport system that supports Maine's air transportation and economic needs, each of the 69 Service Centers should ideally be within 10 miles of a Level I or a Level II airport.

TARGET PERFORMANCE: FLEXIBILITY

Airports that plan for their long-term needs have a greater ability to respond to unforeseen growth and to implement needed development projects. The Systems Plan established an objective for Level I airports have a master plan that is current every 5 years. Level II airports should have master plans that are current every 5-10 years, or as demand or local conditions warrant. Level III airports should have a master plan every 10 years or as local conditions or demand warrants. Level IV airports should have a master plan every 15 years or as local conditions or demand warrants. Currently, 72 percent of all system airports report that they have a master plan or ALP that is current within the past 5 years.

System airports should ideally have surrounding municipalities that have adopted land use controls to make the land use in the airport environs compatible with the airport and

its operation. Within the context of the system evaluation presented in the previous chapter, the current compliance rating for this benchmark was based on data supplied by the airports and not by the municipalities that surround each airport. According to airport reported data, 58 percent of all system airports have municipalities that have adopted compatible land use guidelines. The System Plan set a target to have 100 percent of the municipalities in Maine that host airports adopt compatible land use guidelines for their airports. While Maine has guidelines for compatible land use planning in the airport environs, these compatible land use guidelines should be updated and distributed to impacted municipalities as a follow on to the MASPU. Statewide workshops on airports and land use planning should be in support of increasing the system's compliance with this objective.

Ideally, all system airports should be recognized in their local comprehensive plans. Current compliance with this benchmark is based on data supplied by the airports rather than by the municipalities. According to the data supplied by the airports, 67 percent of all airports are now included or recognized in a local comprehensive plan. A target to have 100 percent of all system airports included in any local comprehensive plan that is developed for their area was adopted as part of the Systems Plan. An example airport/aviation section for a local comprehensive plan should be developed; OPT should work with Maine Statewide Planning to develop this model/example. The example could be distributed to all municipalities in Maine who have the responsibility for preparing a local comprehensive plan and to each of the public and private airports in the State.

It is in the State's best interest to have an airport system that is fiscally responsible. Operations of airports in Maine should be supported with business/financial plans. Currently, 58 percent of the system airport report that they have some type of financial, accounting, or business planning practices in place. The Systems Plan set a target that all (100 percent) Level I, Level II, and Level III airports have established financial/business planning procedures in place. Developing business/financial plans could become an element in all future master plans for Maine's airports: As resources are available or as circumstances dictate, Level IV airports should also meet this benchmark.

The best ways for OPT to recognize and to track system changes is through the prompt and accurate reporting of annual activity statistics from all system airports. Currently, only some airports in Level I routinely report activity statistics to OPT; 44 percent of the Level I airports report statistics regularly. This translates into an 11 percent system compliance rating. A target was established to have 100 percent of all system airports comply with this benchmark on an annual basis.

TARGET PERFORMANCE: ACCESSIBILITY

Helicopter landings can be accommodated at both designated helicopter landing sites and at the State's public and private airports. Accessibility to helicopter landing sites should be considered as an informational benchmark. The State's designated heliports and public

and private airports provide ample opportunities for these types of operators in Maine. A target to increase coverage for this benchmark was not adopted.

It is important for pilots to know where they can get services at the State's many seaplane bases; therefore, it is important to know where attended seaplane bases exist. This is an informational benchmark. The Systems Plan does not have any specific recommendations for increasing coverage for this benchmark.

System airports should be available to accommodate "special use" aviation activities; this is an informational benchmark. The Systems Plan noted current coverage from existing public airports that support these types of aviation-related activities. In addition, coverage provided by private airports in Maine is also important. Private airports most often support the needs of special use aviation activities. No targets were set for increasing or decreasing coverage for this benchmark.

Over the past 10 years, smaller commercial airports in Maine have recorded declining levels of enplanements and the likelihood of additional airports obtaining commercial airline service is very limited. While a 60 minute drive time is often regarded as a typically service area for a commercial airport, for both Bangor International and the Portland Jetport, it is not uncommon to find their passengers driving two or more hours to reach the airport. Scheduled commercial airline service to airports in Maine, aside from those serving Portland and Bangor, is already supported by Federal operating subsidies either through the Essential Air Service (EAS) program or the Small Community Air Service Grant program. There is little that OPT can do in a deregulated airline environment to change or improve the State's scheduled commercial airline service. Understanding passenger dynamics and changes in commercial airline service is, however, important to Maine's economy which is heavily dependent upon tourism. A target has been established for OPT to work with commercial airports to monitor passenger demand levels and changes in commercial airline service.

Ideally, a high percent of the State and most of its population should be within 30 minutes of at least one system airport. This is, again, primarily an informational benchmark. The feasibility of the need to build new airports for the sole purpose of providing additional coverage is very limited. "Replacement" airports for system airports whose future development is constrained to the point where the airport's role cannot be met may be necessary.

Following 9/11, the U.S. witnessed a decline in commercial airline service and increase in the use on on-demand (charter or air taxi) general aviation service. Monitoring those airports that support a certified Part 135 operator who provides on-demand general aviation flights is another benchmark for determining overall system accessibility. Coverage provided by this benchmark was derived from information that was supplied by the FAA; this is an informational benchmark. There is no mechanism for increasing system coverage for this benchmark. Level I and Level II airports are the airports in the system that have the highest potential to attract/support this type of activity in the future,

and these airports, according to service objectives set by the MASPU, should have the most advanced levels of FBO services. No specific target was set for this benchmark.

The State of Maine and the commercial airports in the Maine system have limited ability to affect changes in the level of commercial airline service that carriers provide to Maine. In general, the following targets were established for Maine's scheduled commercial airline service: decrease the State's average one-way airline fare as a percent of the national average one-way fare; maintain service at existing commercial airports; secure nonstop service to additional hubs; and encourage passenger use of "local" commercial airport. OPT has the ability to monitor each of these objectives by comparing data and information gathered as part of the MASPU to market/airport specific conditions for each of these factors as they exist in future planning periods.

Thirty percent of the State, 90 percent of its population, and 65 percent of all established service centers are now within 30 minutes of an airport with on-site weather reporting capabilities. Facility and service objectives established by the MASPU call for Level I airports to have on-site weather reporting equipment. All Level I airports should meet this target.

Currently, 23 percent of the State, 84 percent of its population, and 55 percent of the established Service Centers are within a 30-minute drive time of a system airport with a precision approach. The MASPU facility and service objectives call for all Level I airports to have a precision approach. A target was adopted to have precision approaches to all Level I airports in the Maine system.

Currently, 37 percent of the State, 95 percent of its population, and 78 percent of all established service centers are within 30 minutes of an airport with a non-precision approach. According to MASPU facility and service objectives, all (100 percent) Level I and Level II airports should have a non-precision approach. This target was adopted for future system compliance for this benchmark.

Currently, 21 percent of the State, 80 percent of its population, and 49 percent of the established service centers are within 30-minutes of an all weather airport. For the MASPU, all weather airports are considered to be those that have on-site weather reporting, a precision approach, de-icing services, and snow removal. For this benchmark, all Level I airports should provide the facilities and services needed to qualify them as an all weather airport. Therefore, a target was adopted to have all Level I airports provide the facilities and services needed to increase system coverage for this benchmark.

The typical minimum runway length needed to accommodate business jet traffic in Maine is 5,000 feet. Only Level I airports have a facility objective for a runway length of 5,000 feet or greater. Currently 23 percent of the State, 81 percent of its population, and 51 percent of the established service centers are within a 30 minute drive time of an airport with a runway length of 5,000 feet or greater. It is important to note when establishing

targets for this benchmark that some airports currently assigned to Level I do not meet the 5,000-foot runway length objective. It is also worth noting that to address other target objectives for the system that additional airports may be assigned to Level I. By setting and meeting a target to have all Level I airports have a minimum runway length of 5,000 feet, compliance with this benchmark will increase in the future.

SUMMARY

This chapter of the Maine Aviation Systems Plan Update provides guidance on how Maine's system of airports should ideally perform in the future. Subsequent chapters of this Phase of the MASPU will identify actions that are needed to enable the airport system to reach the target performance objectives outlined in this chapter.